


DEC 13 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Docket No. DN2000-251
Howard Allen Colvin et al	)	Art Unit: 1711
For: REINFORCED SILICA/	)	Examiner: Nathan M. Nutter
ELASTOMER COMPOSITE	)	BEFORE THE BOARD OF PATENT
Serial No. 10/021,200	)	APPEALS AND INTERFERENCES
Filed: December 7, 2001	)	I hereby certify that this correspondence is
Appeal No. 2006-2432	)	being facsimile transmitted to the United States
	)	Patent and Trademark Office to fax number
	)	(571) 273-8300 on December 13, 2006.
	)	
	)	Mary A. Nicoloff

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

REPLY BRIEF UNDER 37 C.F.R. §41.50(a)(2)(ii)

This Reply Brief is being filed in response to the Examiner's Answer mailed on October 13, 2006. This Reply Brief is being filed in accordance with the requirements of 37 C.F.R. §41.50(a)(2)(ii) to maintain the appeal of the rejection of the above-identified patent application. It is not believed that any fee is required for filing this Reply Brief under 37 C.F.R. §41.41, however, in the event that any fees are required, the Commissioner is hereby authorized to deduct such fees from Deposit Account No. 07-1725.

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**STATUS OF THE CLAIMS**

All of the claims pending in the subject patent application (claims 1, 3-7 and 15) are under final rejection with this rejection being appealed. A complete copy of claims 1, 3-7 and 15 is in the Claims Appendix to the Appellant's Brief filed on December 20, 2005.

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The Examiner's Answer expressly withdraws the rejection of claim 1 under 35 U.S.C. §102(a) as being anticipated by Mabry et al (United States Patent 6,075,084).<sup>1</sup> Accordingly, this ground of rejection no longer needs to be reviewed on appeal.

On September 28, 2006, the subject application was remanded to the Examiner because it had not been established that Jia et al (United States Patent 6,417,246) was prior art with respect to the claims pending in the subject patent application. In responding to this remand the Examiner has established that the subject matter disclosed by Jia is properly supported by the provisional patent application to which it claims priority (United States Provisional Patent Application Serial No. 60/155,292, filed on September 21, 1999). Accordingly, it has now been established that the teachings of Jia et al applied by the Examiner are prior art under 35 U.S.C. §102(e) and 35 U.S.C. §103(a) with respect to the claims pending in the subject patent application.<sup>2</sup> Accordingly, this point no longer needs to be reviewed on appeal.

The first ground of rejection is the rejection of claims 1, 3-7, and 15 under 35 U.S.C. §103(a) as being unpatentable over Mabry et al (United States Patent 6,075,084) in view of Jia et al (United States Patent 6,417,246).

The second ground of rejection to be reviewed on appeal is the rejection of claim 6 under 35 U.S.C. 103(a) as being unpatentable over Mabry et al (United States Patent 6,075,084) in view of Jia et al (United States Patent 6,417,246). This ground of rejection should be considered separately from the rejection of claims 1, 3-7, and 15 because Mabry does not disclose or suggest utilizing elongated silica having a length which is within the range of about 70 nm to about 120 nm.

The third ground of rejection to be reviewed on appeal is the rejection of claim 7 under 35 U.S.C. §103(a) as being unpatentable over Mabry et al (United States Patent 6,075,084) in view of Jia et al (United States Patent 6,417,246). This ground of rejection should be considered separately from the rejection of claims 1, 3-7, and 15 because Mabry does not disclose or suggest utilizing elongated silica having a length which is within the range of about 80 nm to about 100 nm.

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<sup>1</sup> This basis of rejection was set forth in the Office Action of June 22, 2004.

<sup>2</sup> It should be noted that the example provided at column 4, line 44 to column 5, line 27 of Jia is not included in the provisional patent application to which Jia et al claims priority. Thus, the subject matter of this example of Jia et al is not prior art with respect to the claims pending in the subject patent application.

### ARGUMENT

The Examiner's Answer admits that "Mabry fails to suggest the (claimed) dimensions of the silica except that the silica may be fumed silica or precipitated silica." Thus, Mabry fails to teach the utilization of elongated silica which is a critical aspect of the invention now being claimed. In fact, the utilization of elongated silica is the key to attaining the benefits reaped by practicing the invention now being claimed.

The Examiner's Answer also accurately notes that "SNOTEX is the same silica which is used in the instant invention." However, this assertion fails to recognize the fact that SNOTEX is a trade name for various types of silica sold by Nissan Chemical Industries that can be of a spherical, elongated, or string-of-pearls particle shape (see Exhibit B to the Appellant's Brief filed on December 20, 2005). Thus, the use of the trade name SNOTEX does not indicate that the silica is of an elongated shape. In fact, Jia indicates that it is preferred to utilize spherical silica in the dental compositions described therein. Accordingly, the teachings of Jia actually teach away from the invention now being claimed.

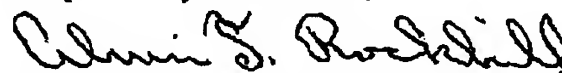
The argument submitted in the Examiner's Answer indicates that "the examiner has set forth what success or advantage can be expected from using elongated silica." However, this assertion is unclear since neither the teachings of Mabry nor the teachings of Jia set forth any advantage that can be expected from utilizing elongated silica over the use of silica that is of a spherical or string-of-pearls shape.

In defense of the Examiner's position that the teachings of Jia are combinable with the teachings of Mabry the Examiner's Answer asserts that "it is immaterial whether the resins are polymerizable or not since all resins do polymerize ultimately." The basis of this assertion is unclear and appears to be unsupported by the teachings of the cited references. Furthermore, the Examiner has still failed to assert why the teachings of Jia which relate to dental compositions are applicable to the rubber compositions now being claimed. The rubber compositions of the invention now being claimed are clearly not resins of the type described by Jia. The Examiner further indicates that "if the silica of Jia et al works well with a polymerizable resins it is reasonable to assume that it should work equally well with rubber, unless proved otherwise." Again, the basis of this assertion by the Examiner is unclear and again appears not to be supported by the teachings of the cited art references or any other evidence.

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For the reasons delineated herein and in the Appellants Brief filed on December 20, 2005 the claims pending in the subject patent application are not obvious over the teachings of Mabry in view of Jia. It is, accordingly, appropriate for the Examiner's rejections to be reversed.

Respectfully submitted,



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